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Accounting for Lethality

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ACCOUNTING FOR LETHALITY

By Laura C. Alford, PhD

During my first week as an assistant professor of financial management at the Naval Postgraduate School (NPS), I read the executive summary of *Education for Seapower*. It emphasizes "strategic education and critical thinking for greater lethality." But I teach accounting. What is lethal accounting? How can I translate financial management into lethality and then communicate it to students?

One of the first principles in communication is to know your audience. At NPS, students primarily are military officers. A colleague encouraged me to participate in the Scientist to Sea program, which is designed to enhance un-

derstanding of shipboard systems and operations for civilians who might design those systems or work with sailors to improve them. In the spirit of strategic education, I spent four nights underway on board a *Ticonderoga*-class cruiser.

which in turn would bump the pilots scheduled for that ship, and so on.

For the ship itself, there could be serious implications to the loss of underway time and drills. All week, the cruiser's crew trained to fulfill certification requirements. Certification is, of course, required before deploying with the carrier group. But certified is different from proficient and current, qualities that are more difficult to measure and sometimes overlooked during the certification process.

I also considered the second- and third-order effects. Pilots would need to reschedule their events on another ship,

the needed part, these drills would be rushed or possibly canceled.

THE BIG PICTURE

In cost accounting, it is important to consider more than just the immediate, short-term effects. We examine the bigger picture and use an extended time horizon when evaluating management decisions.

The Navy has some 290 ships in commission, including 11 carriers. A single carrier has approximately 60,000 spare parts valued at roughly \$98 million that are stored in more than 40 locations. The crew will spend four to seven days each month (about 18 percent of their time) verifying the inventory.¹ If we do the math (\$100 million in inventory x 11 carriers), \$1.1 billion in mission-critical parts are sitting on shelves, not directly contributing to putting "warheads on foreheads."

Maintaining a large inventory of parts ties up critical funds in idle assets. Even more important, inventory takes up space on the ship, which is at a premium at sea. Any reduction in available square footage can have a significant impact on repair time, the size of ship required for a mission, and the quantity of weapons and fuel available.

Decreasing inventory frees funds for investment in productive assets and frees space on the ship. Of course, it is not that simple. What is needed is the convergence of emerging technologies and critical thinking.

THE MUSCLE OF WAR

An analytical mind-set is a key component of financial management. Using inventory as an example, accountants and sailors can use "big data" analysis to forecast which equipment is most likely to break, as well as when, where, and how often. Statistical regression analy-

Better accounting practices can lead to less fraud and waste, which translates into more money for equipment, munitions, and technological advancement.

I learned a lot, but we almost had to come back early because the main reefer needed a part and the backup was failing. When I heard the sailor brief the supply officer early in the week, I didn't think much about it. Later, however, I realized that canceling the deployment would have been costly.

Several newly minted helicopter pilots had scheduled daylight and evening bounces on Tuesday, with more sched-

which in turn would bump the pilots scheduled for that ship, and so on.

For the ship itself, there could be serious implications to the loss of underway time and drills. All week, the cruiser's crew trained to fulfill certification requirements. Certification is, of course, required before deploying with the carrier group. But certified is different from proficient and current, qualities that are more difficult to measure and sometimes overlooked during the certification process.

Skills are refined and honed with practice. Sailors need to practice with drills: firefighting, man overboard, torpedo evasion. However, without food, without a working refrigerator, without



Financial management and spreadsheets are not thought of as deadly weapons, but being able to account for the billions of dollars in the defense budget is crucial. Chief of Naval Operations Admiral Michael Gilday has noted that fiscal stewardship will enable the Navy to deliver more warfighting capability for every dollar.

sis has the potential to reduce inventory in the short run, freeing working capital funds.

However, just because there are parts on board does not mean they will be the parts needed while underway. Three-D printing might offer a solution.² Investing in the education of engineers to develop the technology required for 3D printing on ships and training sailors to operate the equipment is a viable long-term solution to inventory and repair problems.

This is a great idea, but great ideas without funding are called dreams. How then do we add this to an already burdensome budget? The answer may lie in better auditing.

In 2017, the Department of Defense (DoD) issued Financial Improvement and Audit Readiness Guidance that highlights the necessity of educating staff, sailors, and soldiers about proper accounting procedures and internal controls.³ While spreadsheets are not registered as deadly weapons, be-

ing able to account for the billions of dollars in the budget is crucial. DoD's widely publicized audit failures have highlighted this critical need. Better accounting practices can lead to fewer instances of fraud and less waste, which translates directly into more money for equipment, munitions, and technological advancement.

How much money are we talking about? More than \$792 million was recovered in fines, penalties, restitution, and forfeiture of property as a result of criminal convictions against federal contractors during 2013–17.⁴ That is the equivalent of approximately 560 Tomahawk missiles, which undeniably would affect the lethality of the fleet.

Chief of Naval Operations Admiral Michael Gilday lists fiscal stewardship as a key component of the future Navy end state.⁵ Without funding, there are no fighter jets, carriers, or destroyers. Without a paycheck, there are no sailors to operate the equipment and fight the battles. Without steady revenue streams,

research and technological innovations cease. Money is the muscle of war.⁶

1. Supply Officer, USS *Ronald Reagan* (CVN-76).
2. Geoff Ziezulewicz, "Bullet's Bold Blueprint to Save Navy Aviation," *Navy Times*, 2 September 2018, www.navytimes.com/news/your-navy/2018/09/24/bullets-bold-blueprint-to-save-navy-aviation/.
3. Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Financial Improvement and Audit Readiness (FIAR) Report* (Washington, DC: November 2017), comptroller.defense.gov/Portals/45/documents/fiar/FIAR_Plan_November_2017.pdf.
4. Office of the Under Secretary of Defense for Acquisition and Sustainment, *Report to Congress: Section 889 of the FY 2018 NDAA, Report on Defense Contracting Fraud* (Washington, DC: December 2018), fas.org/man/eprint/contract-fraud.pdf.
5. ADM Michael M. Gilday, USN, Fragmentary Order 01/2019, Washington, DC.
6. François Rabelais, *Gargantua* (Paris, France, 1532).

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